

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Missile Defense Agency										Date: February 2018		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0604873C I Long Range Discrimination Radar (LRDR)							
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	176.284	186.172	357.659	164.562	-	164.562	91.603	78.112	108.167	133.728	Continuing	Continuing
MD96: Long Range Discrim Radar (LRDR)	165.225	174.540	341.638	158.597	-	158.597	89.330	75.897	102.762	128.326	Continuing	Continuing
MD40: Program Wide Support	11.059	11.632	16.021	5.965	-	5.965	2.273	2.215	5.405	5.402	Continuing	Continuing
Program MDAP/MAIS Code: 362												

**Note**

The decrease from FY 2018 to FY 2019 reflects completion of development and manufacturing of radar hardware and transition to on site radar assembly and integration.

**A. Mission Description and Budget Item Justification**

The mission of the LRDR program is to design, develop, integrate, deliver, field, and sustain the LRDR as an element of the BMDS Increment 6b in support of the Ground-Based Midcourse Defense (GMD) Program's Homeland Defense (HLD) Capability. This capability is representative of LRDR Configuration 1. Initial fielding of the LRDR is planned for 2020 leading to an Operational Capability Declaration in FY 2022. The LRDR is comprised of a LRDR Equipment Shelter (LES), housing two radar array faces, a Mission Control Facility (MCF) which supports radar operations, and supporting facilities and infrastructure. The Secretary of the Air Force approved Clear Air Force Station, Alaska as the LRDR site. The Air Force Space Command (AFSPC) is the designated Lead MAJCOM.

The LRDR operates in the S-band frequency, features scalable and open systems architecture to mitigate evolving threats, and integrates into the BMDS through the Command and Control, Battle Management, and Communications (C2BMC) system. This Program Element includes BMDS threat discrimination improvements to enhance BMDS effectiveness against the evolving threat. The result will be a BMDS architecture more capable of discriminating and intercepting re-entry vehicles with a higher degree of confidence to improve Warfighter shot doctrine, and conserve homeland defense interceptor inventory. LRDR also supports additional mission areas including Space Situational Awareness.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2019 Missile Defense Agency	<b>Date:</b> February 2018
---	----------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604873C / <i>Long Range Discrimination Radar (LRDR)</i>
---	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
Previous President's Budget	173.162	357.659	135.187	-	135.187
Current President's Budget	186.172	357.659	164.562	-	164.562
Total Adjustments	13.010	0.000	29.375	-	29.375
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	8.100	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	10.000	0.000			
• SBIR/STTR Transfer	-3.840	0.000			
• FY 2017 Request for Additional Appropriations	-1.250	0.000	0.000	-	0.000
• Missile Defeat and Defense Enhancement	0.000	0.000	0.000	-	0.000
• Other Adjustment	0.000	0.000	29.375	-	29.375

**Change Summary Explanation**

The FY 2017 reprogramming of \$+10.000M reflects an increase for demolition and remediation of Ballistic Missile Early Warning System (BMEWS) at Clear Air Force Station (CAFS). The increase from PB18 to PB19 in FY 2019 reflects additional data collection events to anchor Models and Simulation (M&S), pairwise testing for C2BMC lab integration with the LRDR lab, logistics data management and program office operations.

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile Defense Agency										Date: February 2018		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR)				Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
MD96: Long Range Discrim Radar (LRDR)	165.225	174.540	341.638	158.597	-	158.597	89.330	75.897	102.762	128.326	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

N/A

**A. Mission Description and Budget Item Justification**

This project provides for the development and initial fielding of a LRDR by 2020 to provide an improved persistent midcourse BMDS discrimination capability in the Pacific sensor architecture. The LRDR will also increase the defensive capacity of the Ground-Based Midcourse Defense (GMD) interceptor inventory and address evolving threats. MDA's request includes funding for the design and development of the LRDR, delivery of spares for initial fielding, system engineering, software development, software Independent Verification and Validation (IV&V), hardware manufacturing, qualification testing, developmental testing support and Modeling and Simulation (M&S) efforts. M&S includes development of LRDR digital simulations and their integration into the BMDS, M&S architecture, and Verification, Validation, and Accreditation (VV&A) of LRDR models. The United States Air Force (USAF) will leverage the LRDR inherent capabilities to augment ancillary missions including Space Object Identification and Space Situational Awareness.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
<b>Title:</b> Long Range Discrimination Radar (LRDR)	174.540	341.638	158.597
<b>Articles:</b>	-	-	-
<p><b>Description:</b> The LRDR program includes requirement development activities associated with systems engineering, software development, discrimination improvements, design reviews, testing, and M&amp;S efforts for radar development. Efforts include LRDR site activation and preparation of site infrastructure for construction activities. The program will develop and integrate C2BMC systems for LRDR functionality. The program will develop, maintain, and deliver radar software Build 1 and establish the Independent Verification and Validation (IV&amp;V) lab for testing of operational software. The program includes purchase, manufacture, integration and test of radar materials. This program will also establish the operational baseline, initiate radar operations and communication, and initiate sustainment operations. The program also includes logistics management; reliability, availability, maintainability (RAM) efforts; data management; and operations support for the LRDR program office. Specific and/or unique accomplishments to each FY are as follows:</p> <p><b>FY 2018 Plans:</b></p> <ul style="list-style-type: none"> <li>-Complete design and purchase hardware:</li> <li>--Conduct system Final Design Review (FDR) and initiate purchasing of design critical components for the Sub-Array Suites (SAS), Radar Processing Group (RPG), and Mission Processing Group (MPG)</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 Missile Defense Agency		<b>Date:</b> February 2018	
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604873C / <i>Long Range Discrimination Radar (LRDR)</i>	<b>Project (Number/Name)</b> MD96 / <i>Long Range Discrim Radar (LRDR)</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2017</b>	<b>FY 2018</b>
--Purchase and receive radar material to include: Transmit Receive (T/R) modules, Wide Band Limiter (WBLR) modules, T/R Low Power Module Circuit Card Assemblies (CCAs), T/R High Power Module CCAs, Power Line Replaceable Units (LRUs), Digital Receiver / Exciter (DREX) LRUs, DREX Radio Frequency (RF) CCAs, DREX Processor CCAs, Column Processors, Long Lead Column Processor CCAs, Subarray Suite Assembly materials, and Synthesizer Cabinets --Initiate qualification and sub-system testing: --Initiate Environmental Qualification testing, Electro-Magnetic Interference (EMI) testing and SAS calibration testing on the LRDR Integration Site (LIS) --Complete Highly Accelerated Life Test (HALT) of radar array power systems --Initiate manufacturing and assembly on Array #1 and #2 and begin Factory Acceptance Testing on Array #1: --Conduct manufacturing review for Sub-Array Suites (SAS) and Front End Electronics (FEE) --Assemble components to include: DREX LRUs, T/R LRUs, Power Supply LRUs, Panel Structure, Radiating Tiles, Circulator CCAs, and Beamformer LRUs --Initiate final SAS and FEE assembly --Deliver Technical Data Package --Deliver 100% Design Drawings for Construction --Complete development and delivery of software Build 1 and transition to software maintenance: --Conduct SW Test Readiness Review (TRR), complete and deliver software Build 1, integrate Build 1 into government IV&V lab and test the operational software build --Deliver Final cyber security mitigation software and final version of diagnostic / evaluation software --Deliver Active Electronic Steered Area (AESAs) Radio Frequency (RF) model  <b>FY 2019 Plans:</b> Radar Assembly and Integration -- Complete receipt of hardware, manufacturing and assembly of Array #1 and #2 -- Complete Factory Acceptance Testing (FAT) on Array #1 and #2 -- Continue Front End Electronics Integration into Array #1 and #2 Panels -- Initiate packaging, shipment, emplacement, and installation of Arrays on-site at Clear Air Force Station (CAFS), AK -- Initiate Mission Control Facility (MCF) / LRDR Equipment Shelter (LES) site Integration with MILCON and C2BMC -- Initiate execution of the Transition & Transfer (T2) checklist items including facility walk-throughs and open storage certification -- Initiate Space Missile Defense Command Warfighter training of C2BMC for LRDR functionality in preparation for operational radar -- Initiate Logistics Business Case Analysis and Depot Maintenance Planning -- Complete qualification and subsystem testing -- Complete final SAS assemblies			

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile Defense Agency									Date: February 2018			
Appropriation/Budget Activity 0400 / 4				R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR)				Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2017	FY 2018	FY 2019	
<div>-Software</div> <div>-- Complete and deliver software Build 1.1, integrate into government Iv&amp;v lab</div> <div>-- Complete software Build 1.1 Formal Qualification Testing (FQT)</div> <div>-- Complete delivery of hardware-in-the-loop (HWIL) components to government ground test lab</div> <div>-- Initiate HWIL pairwise /cycle 2 Testing with C2BMC</div> <div>-- Initiate participation in BMDS ground and flight tests in accordance with the BMDS Integrated Master Test Plan (IMTP)</div> <div>-- Complete final SAS and FEE assembly</div> <div>FY 2018 to FY 2019 Increase/Decrease Statement:</div> <div>Decrease from FY 2018 to FY 2019 reflects completion of development and manufacturing of radar hardware and transition to on site radar assembly and integration.</div>												
Accomplishments/Planned Programs Subtotals									174.540	341.638	158.597	
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost	
• 0603882C: Ballistic Missile Defense Midcourse Defense Segment	1,034.861	957.097	926.359	-	926.359	1,046.235	847.537	585.956	572.619	Continuing	Continuing	
• 0603884C: Ballistic Missile Defense Sensors	252.665	278.145	220.876	-	220.876	250.238	267.502	263.758	260.273	Continuing	Continuing	
• 0603884C: SENSORS MILCON	166.670	0.000	174.000	-	174.000	0.000	0.000	0.000	0.000	0.000	340.670	
• 0603896C: Ballistic Missile Defense Command and Control, Battle Management & Communication	465.433	454.862	475.168	-	475.168	515.239	494.873	492.119	515.529	Continuing	Continuing	
• 0603904C: Missile Defense Integration and Operations Center (MDIOC)	53.483	53.265	54.925	-	54.925	58.498	57.764	59.020	61.915	Continuing	Continuing	
• 0603907C: Sea Based X-Band Radar (SBX)	115.201	145.695	149.715	-	149.715	175.013	155.718	129.044	136.390	Continuing	Continuing	
• 0604879C: Ballistic Missile Defense Sensor Test	81.376	101.839	81.001	-	81.001	77.654	68.026	101.091	81.903	Continuing	Continuing	

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 Missile Defense Agency							<b>Date:</b> February 2018	
<b>Appropriation/Budget Activity</b> 0400 / 4				<b>R-1 Program Element (Number/Name)</b> PE 0604873C / Long Range Discrimination Radar (LRDR)			<b>Project (Number/Name)</b> MD96 / Long Range Discrim Radar (LRDR)	

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u> <u>Base</u>	<u>FY 2019</u> <u>OCO</u>	<u>FY 2019</u> <u>Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 31299903: MILCON PLANNING and DESIGN	15.000	0.000	14.184	-	14.184	49.482	38.424	8.009	8.160	0.000	133.259

**Remarks**

**D. Acquisition Strategy**

The LRDR acquisition strategy, which was approved on January 7, 2015, incorporates robust acquisition practices to ensure delivery of a best value solution that meets mission performance requirements and reduces lifecycle costs. MDA awarded a fixed-price incentive contract to Lockheed Martin Corporation of Moorestown, New Jersey, on October 21, 2015 to design, develop, manufacture, integrate & test, and field the LRDR prime mission equipment. The prime contract included other fixed-price and cost-reimbursable line items and options in order to properly balance acquisition costs and risks. Performance and cost incentives were included to motivate contractor performance. The radar prime contractor will deliver a full technical data package, which will enable the government to effectively and affordably sustain the system. MDA will synchronize the radar development contract efforts with a simultaneous MILCON effort which will be executed through the US Army Corps of Engineers. The LRDR is expected to complete development and initial fielding in 2020 for BMDS integration and testing.

**E. Performance Metrics**

N/A

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Missile Defense Agency												Date: February 2018			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR)				Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Long Range Discrimination Radar (LRDR) - BMEWS Remediation and Removal	MIPR	USACE : AL, AK	0.000	12.610	Nov 2016	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - Communications Integration	C/TBD	Lockheed Martin : Moorestown, NJ	10.350	3.369	May 2017	10.000	May 2018	4.000	May 2019	-		4.000	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - IV&V	MIPR	AMRDEC : Huntsville, AL	2.438	3.091	Nov 2016	3.100	Nov 2017	3.400	Nov 2018	-		3.400	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - Prime Contractor	C/FPIF	Lockheed Martin : Moorestown, NJ	109.312	133.899	Nov 2016	309.981	Nov 2017	113.870	Nov 2018	-		113.870	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - Program Office	Various	MDA, JHU/APL, GSA : AL, MA, IL	0.000	10.616	Dec 2016	0.000		10.455	Oct 2018	-		10.455	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - Site Activation & Studies	C/TBD	MDA : AL	43.125	10.955	Feb 2017	18.557	Feb 2018	23.412	Feb 2019	-		23.412	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - Transition & Transfer	C/TBD	MDA : AL	0.000	0.000		0.000		3.460	Jan 2019	-		3.460	Continuing	Continuing	Continuing
Subtotal			165.225	174.540		341.638		158.597		-		158.597	Continuing	Continuing	N/A
Remarks N/A															
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			165.225	174.540		341.638		158.597		-		158.597	Continuing	Continuing	N/A
Remarks N/A															

# UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Missile Defense Agency																Date: February 2018																
Appropriation/Budget Activity 0400 / 4										R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR)										Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)												
Significant Event Complete ▲ Significant Event Planned △					Milestone Decision Complete ★ Milestone Decision Planned ☆					Element Test Complete ◆ Element Test Planned ◇					System Level Test Complete ● System Level Test Planned ○					Complete Activity ◆ Planned Activity ◇												
										FY 2017		FY 2018			FY 2019			FY 2020			FY 2021			FY 2022			FY 2023					
Long Range Discrimination Radar Capability										◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇
Preliminary Design Review (PDR)											▲																					
Developmental Baseline Review (DBR)													▲																			
Critical Design Review (CDR)													▲																			
Build 1.0 Software Delivery																△																
Build 1.1 Software Delivery																	△															
Initial Fielding																					△											
Technical Capability Declaration (TCD)																							△									
Operational Capability Declaration (OCD)																									△							



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 Missile Defense Agency			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604873C / <i>Long Range Discrimination Radar (LRDR)</i>	<b>Project (Number/Name)</b> MD96 / <i>Long Range Discrim Radar (LRDR)</i>	

**Schedule Details**

<b>Events</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
Long Range Discrimination Radar Capability	1	2017	4	2023
Preliminary Design Review (PDR)	2	2017	2	2017
Developmental Baseline Review (DBR)	4	2017	4	2017
Critical Design Review (CDR)	4	2017	4	2017
Build 1.0 Software Delivery	3	2018	3	2018
Build 1.1 Software Delivery	1	2019	1	2019
Initial Fielding	1	2021	1	2021
Technical Capability Declaration (TCD)	3	2021	3	2021
Operational Capability Declaration (OCD)	1	2022	1	2022

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile Defense Agency										Date: February 2018		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR)				Project (Number/Name) MD40 / Program Wide Support			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
MD40: Program Wide Support	11.059	11.632	16.021	5.965	-	5.965	2.273	2.215	5.405	5.402	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Program Wide Support (PWS) reflects proportional changes as a result of budget changes in the Long Range Discrimination Radar program element. Funding in the All Prior Years column represents a summary of Prior Years Total Costs for active contracts, Military Interdepartmental Purchase Requests on the R-3.

**A. Mission Description and Budget Item Justification**

PWS contains non-headquarters management costs in support of MDA functions and activities across the entire BMDS. It Includes Government Civilians and Contract Support Services. This provides integrity and oversight of the BMDS as well as supports MDA in the development and evaluation of technologies that will respond to the changing threat. Additionally, PWS includes Global Deployment personnel and support performing deployment site preparation and activation, and provides facility capabilities for MDA Executing Agent locations. Other MDA wide costs includes: physical and technical security; civilian drug testing; audit readiness; the Science, Technology, Engineering, and Mathematics (STEM) program; legal services and settlements; travel and agency training; office, equipment, vehicle, and warehouse leases; utilities and base operations; data and unified communications support; supplies and maintenance; materiel and readiness and central property management of equipment; and similar operating expenses. PWS is allocated on a pro-rata basis and therefore, fluctuates by year based on the adjusted RDT&E profile (which excludes: 0305103C Cyber Security Initiative, 0603274C Special Programs, 0603913C Israeli Cooperative Program and 0901598C Management Headquarters).

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
<b>Title:</b> Program Wide Support	11.632	16.021	5.965
<b>Articles:</b>	-	-	-
<b>Description:</b> N/A			
<b>FY 2018 Plans:</b> N/A			
<b>FY 2019 Plans:</b> N/A			
<b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> N/A			
<b>Accomplishments/Planned Programs Subtotals</b>	11.632	16.021	5.965

UNCLASSIFIED

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 Missile Defense Agency		<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604873C / <i>Long Range Discrimination Radar (LRDR)</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>Remarks</b>		
<b>D. Acquisition Strategy</b> N/A		
<b>E. Performance Metrics</b> N/A		

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Missile Defense Agency												Date: February 2018			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR)				Project (Number/Name) MD40 / Program Wide Support					
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Facilities and Maintenance SRM (MIPR)	MIPR	Various : Multi: AL, VA, Aust, Japan	5.709	5.873	Nov 2016	9.153	Nov 2017	2.414	Mar 2019	-		2.414	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations Management	Allot	Various : Multi: AL, CA, CO, VA	0.224	0.236	Jul 2017	0.320	Jul 2018	0.090	Jul 2019	-		0.090	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations Sustainment and GPC	Allot	Varios : Multi: AL, CA, CO, VA etc.	0.000	0.000		0.000		1.592	Mar 2019	-		1.592	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	Allot	Various : MDA Multi: AL, CO, CA, VA	5.126	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	Various : Multi: AL, VA	0.000	5.523	Jul 2017	6.548	Jul 2018	1.869	Jun 2019	-		1.869	Continuing	Continuing	Continuing
Subtotal			11.059	11.632		16.021		5.965		-		5.965	Continuing	Continuing	N/A
Remarks N/A															
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			11.059	11.632		16.021		5.965		-		5.965	Continuing	Continuing	N/A
Remarks N/A															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Missile Defense Agency														Date: February 2018																				
Appropriation/Budget Activity 0400 / 4														R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR)										Project (Number/Name) MD40 / Program Wide Support										
Significant Event Complete ▲				Milestone Decision Complete ★				Element Test Complete ◆				System Level Test Complete ●				Complete Activity ◆																		
Significant Event Planned △				Milestone Decision Planned ☆				Element Test Planned ◇				System Level Test Planned ○				Planned Activity ◇																		
														FY 2017		FY 2018		FY 2019		FY 2020		FY 2021		FY 2022		FY 2023								
MD40 Program-Wide Support														◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Missile Defense Agency			Date: February 2018
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR)	Project (Number/Name) MD40 / Program Wide Support	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD40 Program-Wide Support	1	2017	4	2023